

Cavalry and the Great Walls of China and Mongolia

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The osteological study of eight well-dated horse skeletons from Xinjiang (350 BCE) is reported as an important discovery: the earliest direct evidence for horseback riding in China (1). However, the sites are located roughly 2,000 km from the centers of Chinese civilization, where evidence for domesticated horses predates these skeletons by some 1,000 years (2), and artistic depictions of horseback riding appear some 400 years earlier than these skeletons (3). Horses in China were extensively used for charioteering: The duke of Qi's tomb complex in Shandong (490 BCE) included several hundred sacrificial horses (4). Why, then, is this discovery so important?

Its importance, we argue, lies elsewhere: the beginning of cavalry warfare, a phenomenon that changed the geopolitical makeup of this region for the next two millennia. The occurrence rate of vertebral abnormalities suggests extensive exploitation, which is commonly attributed to excessive horseback riding, and their dating correlates with the onset of cavalry warfare on China's northern frontiers.

As chariots lost their importance in the battlefield during the sixth to fourth centuries BCE, the Chinese states shifted to infantry-centered armies and are thought to have gradually adopted horseback fighting (5). While infantry fighting is well established, contemporary texts do not support this gradualist model: Horseback riding, let alone horseback fighting, is hardly mentioned in texts predating the late fourth century BCE. Notably, cavalry is never mentioned in the *Art of War* by Sunzi (~350 BCE), the most comprehensive military text of early China (6).

The eight horses from Shirenzigou and Xigou (1) demonstrate that horseback riding was not a minor practice in the Eurasian steppe during the fourth century BCE. Consequently, the story of King Wuling's adoption of horseback riding (along with nomadic-style trousers) might be an authentic reflection of the relatively rapid transformation that occurred in the battlefields of north China during this time.

Could horseback riding be connected to the swift construction of long walls on the northern borders of the Chinese states, too? The earliest long border walls were constructed during the midfifth century BCE in China's heartland, to separate Chinese states from each other (7). The three northern states, Qin, Zhao (under King Wuling), and Yan, began building walls during the last decade of the fourth or the beginning of the third century BCE (8). Separating the Chinese states from their pastoral–nomadic neighbors, it stands to reason that this sudden burst of massive wall construction was associated with the increased threat posed by nomadic cavalry, perhaps as an offensive strategy to hold newly captured territories in the steppe (9) among a now highly mobile society.

Cavalry and long border walls (or Great Walls) are among the most crucial aspects that shaped the geopolitics of Mongolia and China (10). In essence, rapid long-distance movement (horseback riding) and efforts to constrain or control those movements (with walls) are essential for understanding issues of empire construction and collapse, long-range trade, intercultural exchange, and inter-regional dependency in this region. Li et al. (1) provide us with a secure date for the onset of these processes.

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